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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,886	08/07/2006	Kwang-Oh Kim	0608-0358PUS1	9728
2292 7590 10/09/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
SINGH, ARTI R				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
10/09/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

**Application No.**

10/533,886

**Applicant(s)**

KIM ET AL.

**Examiner**

Arti Singh

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/ISD)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date several

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6994125 issued to Trondle et al. in view of USPN 5989660 issued to Moriwaki et al.
3. Trondle et al disclose a method of weaving airbags that comprise in at least some sections where multiple layers are present, especially one-piece woven airbags comprising a single layer, a double layer and multilayer sections. These layers may have different weaves but plain weave is preferred. The upper and lower ply are interwoven into a single ply at the selvage. Trondle lacks the specific structural and chemical teachings required such as cover factor, what the coating is made of and the resultant properties such as kPa. Moriwaki et al remedies this.

Moriwaki et al. discloses a base fabric used for making airbags comprising a fibrous substrate covered with a thermoplastic resin layer about 10 micron thick (abstract). The fibrous layer can be a woven fabric made from a polyamide fibers of nylon 6.6, nylon 6, nylon 12, nylon 4.6, nylon 6-nylon 6.6 copolymer, or any of copolymers of nylon with, for example, a polyalkylene glycol, dicarboxylic acid or amine,

polyester fibers of a homopolyester such as polyethylene terephthalate or polybutylene terephthalate, or any copolymer thereof additionally containing units derived from another acid component of a polyester, such as an aliphatic dicarboxylic acid, for example, isophthalic acid, 5-sodiumsulfoisophthalic acid or adipic acid, aramid fibers of, for example, any copolymer formed from paraphenyleneterephthalamide and an aromatic ether, rayon fibers, sulfone based fibers, ultrahigh molecular weight polyethylene fibers, and high polymer fibers arranged within an islands-in-sea structure mainly composed of the above synthetic fibers. As the fabric of the fiber substrate, a woven fabric is preferable. As for the weave, a plain weave, twill weave, satin weave, modified weaves of these types or a multi-axial weave, can be used, but among them a plain weave, is preferable because it is excellent in mechanical properties and thin. Among these woven fabrics, a plain weave of polyamide fibers or polyester fibers is capable of providing an airbag having excellent properties (column 2, lines 33+). The strength of the mono-filaments constituting the woven fabric is not especially limited, but is preferably 6 g/denier (6.7 g/dtex) or more, more preferably 7 g/denier (7.8 g/dtex) or more. The thickness of each of the mono-filaments and the thickness of each of the filament yarns respectively constituting the woven fabric are not especially limited as far as the mechanical properties required as airbags can be satisfied. However, it is preferable that the thickness of each of the mono-filaments is at least 0.1 denier (0.11 dtex), more preferably at least 0.5 denier (0.55 dtex) up to 7 deniers (7.8 dtex) inclusive, and that the thickness of each of the filament yarns is 200 to 500 deniers (220 to 550 dtex). Furthermore, the cover factor of the woven fabric is preferably 1700 to 2500

denier  $\times 0.5$  in  $\times 0.5$  [(0.9 dtex)  $\times 0.5$  (2.54 cm.)  $\times 0.5$  ]. The cover factor referred to here is expressed by  $(\sqrt{D1}) \times N1 + (\sqrt{D2}) \times N2$ , where D1 is the thickness (denier) (0.9 dtex) of each of the warp filament yarns, N1, the density of the warp filament yarns (number per inch) (number per 2.54 cm), D2, the thickness (denier) (0.9 dtex) of each of the weft filament yarns, and N2, the density of the weft filament yarns (number per inch) (number per 2.54 cm). The loom used for weaving is desirably a water jet loom, air jet loom or rapier loom. The thermoplastic synthetic resin of the covering layer of a fabric in accordance with the present invention can be based on, for example, a polyurethane, polyester, polyamide, acrylic polymer, polyethylene or polypropylene. Among these thermoplastic synthetic resins, polyurethane based resins and polyester based resins are more effective. Having regard to environment resistance, particularly heat resistance of the base fabric for airbags, the softening point of the synthetic resin is preferably 120.degree C or higher, more preferably 150.degree C or higher. The softening point referred to here is the temperature at which the synthetic resin (solid) begins to flow at a pressure of 10 kg/cm<sup>2</sup>.

Trondle and Moriwaki et al. in a nutshell, teach what is set forth above but do not explicitly recite the same properties of air leakage per unit length, stiffness value and breaking modulus. It is the position of the Examiner that the combination of Trondle and Moriwaki et al. structurally and chemically teach the woven airbag fabric that is woven off of a one piece weaving machine to create at least a two layered with attachment points which in turn forms an airbag. As structurally and chemically they appear to be the same then it would be reasonable to presume that the properties air leakage per

unit length, stiffness value and breaking modulus would also be the same. The burden is upon Applicant to prove otherwise. See in re Fitzgerald 205 USQ 495. In addition the presently claimed properties of air leakage per unit length, stiffness value and breaking modulus would have been present once the combination of Trondel and Moriwaki et al. were provided. Note In re Best 195 USPQ at 433, footnote 4 (CCPA 1977).

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arti Singh whose telephone number is 571-272-1483. The examiner can normally be reached on M-R 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 1794

/Arti Singh/  
Primary Examiner  
Art Unit 1794

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